UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
2646	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/515,589	STELMAN, BRUCE W.
	Examiner	Art Unit	
	Walter F. Briney III	2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 March 2005_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _7-22 and 24-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _7-20 and 24-27_ is/are rejected.

7)☒ Claim(s) _21 and 22_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 7-17, 20, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Deutsch et al. (US Patent 5,577,115) in view of Ryu (US Patent 5,400,397).

Claim 17 is limited to a *method of interfacing a telephony appliance to a*

telephone switching system. Deutsch discloses an interface recognition unit that

determines whether a telephone network is either ISDN (i.e. *digital*) or *analog* (abstract)

(this is analogous to the limitation of *identifying a first communication protocol utilized by*

the telephone switching system). Deutsch discloses an interface that configures itself

according to the detected network, therefore, the interface's adaptation serves to

determine if terminal devices (i.e. *telephony appliances*) will operate using digital or

analog signals (i.e. *communicate voice as digital or analog signals*) (column 2, line 46-

column 3, line 19). Deutsch discloses configuring an interface using an ISDN circuit

(i.e. *activating a first signal path through an apparatus...*) when it is determined that the

network is an ISDN network (i.e. *when the telephone system communicates voice*

signals as digital samples) (column 3, line 56-column 4, line 12). Deutsch discloses, as

part of his ISDN circuit (i.e. *the first signal path includes...*), a CODEC that converts

digital ISDN signals to analog (i.e. *a converter for converting the digital samples into an*

analog signal) (column 4, lines 13-44). Deutsch discloses configuring an interface using

an analog circuit (i.e. *activating a second signal path ...*) when it is determined that the

network is an analog network (i.e. *when the telephone system communicates voice*

signals in an analog format) (column 2, line 47-column 3, line 19). The analog signal

path includes analog circuitry (i.e. *the second signal path includes analog signal*

processing circuits) (column 4, lines 45-65). Deutsch provides a flexible arrangement

for the connection of an analog phone to either ISDN or POTS networks, however,

Deutsch does not allow for other types of phone terminals to be connected, such as 2-

wire, 4-wire, and digital. Therefore, Deutsch anticipates all limitations of the claim with

the exception of *identifying a second communication protocol utilized by the telephony*

appliance.

Ryu teaches that an automatic branch exchange (i.e. CPE) benefits from

universal extension ports that allow 2-wire, 4-wire, and digital phone terminals to be

connected to them. It allows greater user flexibility and the invention of Ryu also allows

a doubling of CPE numbers (column 1, lines 5-68). It would have been obvious to one

of ordinary skill in the art at the time of the invention to allow multiple types of phone

terminals to be connected and identified by a branch exchange as taught by Ryu for the

purpose of providing extended operability to the invention of Deutsch.

The limitations corresponding to *wherein the first communication protocol and the*

second communication protocol must first be identified before the telephony appliance

and the telephone switching system being communicating with one another are

discussed in detail in the Non-Final office action filed 01 December 2004 in the section

entitled *Response to Arguments.*

The limitations corresponding to *wherein the identified first communication*

protocol is used to dynamically program a first control circuit within the first signal path

or a second control circuit within the second signal path are discussed in detail in the

proceeding section entitled *Response to Arguments.* Therefore, Deutsch in view of Ryu

makes obvious all limitations of the claim.

Claims 7, 8, 11, and 12 are essentially the same as claim 17 and are rejected for

the same reasons, with the exception that the control circuit as recited herein is

programmed according to the communication protocol used by the *telephony appliance*

instead of the communication protocol used by the telephone switching system. The

limitations concerning *wherein configuring the signal path includes dynamically*

programming a first control circuit within the signal path according to the identified first

communication protocol are discussed in detail in the proceeding section entitled

Response to Arguments. Therefore, Deutsch in view of Ryu makes obvious all

limitations of the claim.

Claim 20 is limited to *the method according to claim 17*, as covered by Deutsch

in view of Ryu. Deutsch discloses measuring the power on each line (i.e. *measuring a*

first voltage supplied by the telephone switching system...) with a power test circuit and

microprocessor (i.e. *to a resistive load*) (figure 2, elements 41 and 42) (column 5, line 9-

column 6, line 10). Therefore, Deutsch in view of Ryu makes obvious all limitations of

the claim.

Claim 23 is limited to *the method according to claim 17*, as covered by Deutsch in view of Ryu. Deutsch discloses identifying the network the customer premises equipment is connected to (i.e. *identifying a communication protocol utilized by the telephone switching system*) (abstract). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 24 is limited to *the method according to claim 23*, as covered by Deutsch in view of Ryu. Deutsch discloses a switch hook relay that detects when a device is on/off-hook (i.e. *detecting an on-hook/off-hook condition of the telephony appliance*) (column 4, lines 47-52). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 14 is essentially the same as claim 24 and is rejected for the same reasons.

Claim 25 is limited to *the method according to claim 24*, as covered by Deutsch in view of Ryu. Deutsch discloses providing hook status signals to the network (i.e. *providing an indication of the on-hook/off-hook condition of the telephony appliance to the telephone switching system...*) when in the analog mode (i.e. *in accordance with the identified protocol*) (column 4, lines 47-52). Providing hook status signals to a network includes a transition from *an on-hook condition to an off-hook condition*. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 15 is essentially the same as claim 25 and is rejected for the same reasons.

Claim 26 is limited to *the method according to claim 24*, as covered by Deutsch in view of Ryu. Deutsch discloses providing hook status signals to the network (i.e. *providing an indication of the on-hook/off-hook condition of the telephony appliance to the telephone switching system...*) when in the analog mode (i.e. *in accordance with the identified protocol*) (column 4, lines 47-52). Providing hook status signals to a network includes a transition from *an off-hook condition to an on-hook condition*. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 16 is essentially the same as claim 26 and is rejected for the same reasons.

Claim 10 is rejected for the same reasons applied in both claims 25 and 26 together.

Claim 9 is limited to *the method according to claim 7*, as covered by Deutsch in view of Ryu. Deutsch discloses connecting terminal devices to a telephone network, thus providing communication for all telephone signals (i.e. *wherein the signal path is utilized for communicating voice and control signals between the telephony appliance and the telephone switching system*) (column 2, line 47-column 3, line 19). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 13 is essentially the same as claim 9 and is rejected for the same reasons.

Claim 27 is essentially the same as claim 17, as covered by Deutsch in view of Ryu, with the further limitation of *translating a communication according to the communication protocol of the switching system and further according to the communication protocol of the telephony appliance*. Deutsch discloses a CODEC

(figure 1b, element 20) that *translates* digital ISDN signals (i.e. *according translating a communication according to the protocol of the switching system...*) into analog signals used by terminal devices (i.e. *and the telephony appliance*) (figure 1b, elements 22 and 27) (column 4, lines 13-44).

The limitations corresponding to *wherein the first communication protocol and the second communication protocol must first be identified before the telephony appliance and the telephone switching system being communicating with one another* are discussed in detail in the Non-Final office action filed 01 December 2004 in the section entitled *Response to Arguments*.

The limitations corresponding to *dynamically programming a control circuit according to the determined first communication protocol* are discussed in detail in the proceeding section entitled *Response to Arguments*. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

2.   **Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deutsch in view of Ryu and further in view of Gutzmer (US Patent 5,555,300).**

Claim 19 is limited to *the method according to claim 17*, as covered by Deutsch in view of Ryu. Deutsch discloses detecting an analog network and connecting the appropriate power lines to support the analog network (i.e. *adapting the second signal path according to requirements of the telephone switching system*). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim with the exception of *adjusting an amplification level*.

Gutzmer teaches to adapt the microphone amplification level of a telephone

based on the detection of a telephone dial tone (i.e. *according to a level of a dial tone*

provided by the telephone switching system) thus providing a voice signal with

maximum signal strength and minimum distortion (column 2, lines 14-39). It would have

been obvious to one of ordinary skill in the art at the time of the invention to adjust the

amplification level of the handset microphone of Deutsch in view of Ryu by the method

as taught by Gutzmer for providing a voice signal with maximum strength and minimum

distortion.

Claim 18 is rejected for the same reasons as claim 19.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject

matter:

3.   **Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but
        would be allowable if rewritten in independent form including all of the limitations of the
        base claim and any intervening claims.**

Claim 21 is limited to *the method according to claim 20*, as covered by Deutsch

in view of Ryu. As explained in claim 20, Deutsch discloses measuring the power on

each line with a power test circuit and microprocessor, but does not vary the power test

conditions to include unloaded conditions. Therefore, Deutsch in view of Ryu makes

obvious all limitations of the claim with the exception of *measuring a second voltage*

supplied by the telephone switching system under unloaded conditions. Therefore,

claim 20 is allowable.

Claim 22 is allowable because it is dependent on claim 21.

Response to Arguments

4.   **Applicant's arguments with respect to claim 7-22 and 24-27 filed 03 March 2005, have been
fully considered but they are not persuasive.**

With respect to claim 7, the applicant alleges on page 10 of the current

response that the combination of Deutsch and Ryu fails to disclose, teach or suggest

dynamically programming a control circuit according to an identified communications

protocol of a telephone switching system; the examiner respectfully disagrees. As a

first matter, claims 7 and 11 have been amended so that dynamic programming occurs

based on the protocol used by the telephony appliance while claims 17 and 27 have

been amended to recite dynamic programming in response to the protocol used by the

telephone switching system. Thus, the applicant's argument is moot. However, to

further prosecution, it will be shown that Ryu does teach dynamic programming

according to an identified first communication protocol utilized by a telephony appliance

as recited.

In particular, the private automatic branch exchange (100) depicted in figures 1

and 2 includes two interface units (108) and (110) in each extension port. Based on the

type of telephone terminal connected to the extension port, at least one of the interfaces

dynamically configures itself. For example, in figure 1, interface (108) must provide a

digital interface while interface (110) provides a standard two-wire telephone interface.

In figure 2, both interfaces are configured to handle four-wire key telephone signals. In

essence, the interfaces form a control circuit as recited simply because the claim makes

no distinction concerning the function of the control circuit and because the dynamically

configure, i.e. program, themselves according to the type of telephone they interface

with. As all of the applicant's arguments have been shown to be either moot or

unpersuasive, the rejection of claim 7 is maintained.

With respect to claims 8-10, the applicant alleges that they are allowable over

the cited prior art because of their dependence on claim 7; the examiner respectfully

disagrees. As all arguments concerning claim 7 have been shown to be either moot or

unpersuasive, and because the applicant has not presented further arguments

concerning its dependent claims, the rejections of claims 8-10 are maintained.

With respect to claim 11, the applicant alleges on page 11 of the current

response that the combination of Deutsch and Ryu fails to disclose, teach or suggest

dynamically programming a control circuit according to an identified communications

protocol of a telephone switching system; the examiner respectfully disagrees. This

arguments is essentially the same as the arguments treated above concerning claim 7.

As all of the applicant's arguments have been shown to be either moot or unpersuasive,

the rejection of claim 11 is maintained.

With respect to claims 12-16, the applicant alleges that they are allowable over

the cited prior art because of their dependence on claim 11; the examiner respectfully

disagrees. As all arguments concerning claim 11 have been shown to be either moot or

unpersuasive, and because the applicant has not presented further arguments

concerning its dependent claims, the rejections of claims 12-16 are maintained.

With respect to claim 17, the applicant alleges on pages 11 and 12 of the current response that the combination of Deutsch and Ryu fails to disclose, teach or suggest dynamically programming a control circuit according to an identified communications protocol of a telephone switching system; the examiner respectfully disagrees. Central to the applicant's conclusion is the correspondence of the microprocessor (41) to the control circuit claimed. However, the microprocessor (41) is not the only device within Deutsch that can be considered a control circuit. As identified in the treatment of the applicant's arguments concerning claim 7, the claim does not recite the function of the control circuits within the signal paths. It follows that the switch matrix (43), which controls the signal flow to one of loops (44), (45) and (50) and is dynamically programmed because it dynamically changes the active output loop in response to the type of protocol used by the telephone switching network detected by the microprocessor (41), corresponds to a dynamically programmed control circuit. As all of the applicant's arguments have been shown to be either moot or unpersuasive, the rejection of claim 17 is maintained.

With respect to claims 18-22 and 24-26, the applicant alleges that they are allowable over the cited prior art because of their dependence on claim 17; the examiner respectfully disagrees. As all arguments concerning claim 17 have been shown to be either moot or unpersuasive, and because the applicant has not presented further arguments concerning its dependent claims, the rejections of claims 18-22 and 24-26 are maintained.

With respect to claim 27, the applicant alleges on pages 12 and 13 of the current response that the combination of Deutsch and Ryu fails to disclose, teach or suggest dynamically programming a control circuit according to an identified communications protocol of a telephone switching system; the examiner respectfully disagrees. This arguments is essentially the same as the arguments treated above concerning claim 17. As all of the applicant's arguments have been shown to be either moot or unpersuasive, the rejection of claim 27 is maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
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SUPERVISORY PATENT EXAMINER